2001 Upper Deschutes Resource Management Plan Social Values Survey

Final Report

Submitted to:

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Executive Summary

Background

The Bureau of Land Management contracted with the University of Oregon to conduct a social values survey to gather information from Central Oregon residents to better understand the communities' attitudes and beliefs about BLM-managed resource lands. The BLM will use the information generated through this survey process to supplement the social component of the Analysis of the Management Situation (AMS).

Methods

The primary research tool was a survey mailed to households and key stakeholder groups within the study area. CPW distributed approximately 1,400 surveys to households within the planning area and an additional 950 surveys to individuals on the Upper Deschutes Resource Management Update mailing list. Of the latter, approximately 40 surveys were targeted specifically to key stakeholders in the region. Not counting undeliverable addresses, approximately 2,050 surveys were distributed and 692 were completed and returned, for a 34 percent response rate.

The survey results show response bias in three areas: gender, age, and income. Nearly three-quarters of the respondents were male, compared to about 50% of all Central Oregon residents. The average age of respondents was about 55 years, compared to 50 years for all Central Oregon residents age 18 and over. Finally, the average income was over \$67,000 compared to \$34,700 in Crook County, \$44,200 in Deschutes County, and \$36,500 in Jefferson County.

In summary, known areas of response bias exist in the general population sample. This bias suggests that readers should take caution in inferring the results to all Central Oregon residents. Because the general population sample so closely mirrors the BLM mailing list, we postulate that the general population sample also represents people interested in natural resource management in Central Oregon.

One could hypothesize that the overall sample represents people that use BLM lands (90% of respondents indicated they used BLM lands within the past 12 months), but this again cannot be verified because CPW does not have data on the demographic characteristics of people that use BLM lands.

Despite the areas of known response bias, CPW feels the survey results represent the range of attitudes and values of people in Central Oregon. Taken in that context, the survey results are useful to BLM planners because they the provide a better understanding of values about land management issues and identify areas where values may conflict with resource management goals or various user groups.

Key Findings

The following bullet statements present key findings from the survey and are organized by topic.

Demographics

- The average survey respondent was in their mid-50s, and male. While the demographic characteristics observed in the survey sample were not unexpected, they are inconsistent with the overall age and gender characteristics of Central Oregon residents. Respondent characteristics, however, may be representative of the type of people that are most likely to use BLM lands in Central Oregon.
- The majority of respondents were from rural areas in Central Oregon. About 83% of respondents were from Crook, Deschutes, or Jefferson Counties. Sixty-eight percent of respondents reported they live outside a city limit. Data from the 1990 Census indicate that about 55% of persons in Crook and Deschutes counties lived inside a city limit in 2000.
- Most respondents live in relatively close proximity to BLM lands. Overall, 35% of the respondents lived either immediately adjacent to BLM land or within one mile. About 26% of respondents lived between one and five miles, while 15% lived between five and 10 miles. Twenty-two percent lived more than 10 miles.

Use of BLM lands

- A large majority of respondents reported using public lands and BLM lands in Central Oregon. Over 90% of respondents indicated they had visited public land and/or BLM lands in Central Oregon during the past year. The results suggest that public lands are an important resource to respondents.
- The majority of respondents are relatively infrequent visitors to BLM lands. Nearly 50% of respondents reported visiting BLM lands 10 or fewer times in the past year, while 27% reported using BLM lands between 11 and 25 times. Eleven percent reported visiting BLM lands 50 or more times during the past year.
- Camping, sightseeing, and hiking were the most popular activities on BLM lands. Analysis of activities by respondent indicates respondents generally visit BLM lands for multiple activities.
- Non-recreational uses were also important activities. Wood gathering was the most frequently cited activity (18%), followed by hunting (8%).

Public land use and management

- Respondents generally felt the BLM is accomplishing its mission. Nearly two-thirds of the respondents felt that the BLM is achieving its mission either "very well" or "somewhat well." About 27% felt the BLM was achieving its mission either "not well" or "not at all." Nine percent responded they didn't know how well the agency is achieving its mission.
- Survey results indicate that respondents place a high value on public lands and that they are important for the social and economic health of Central Oregon communities. The results also underscore that different respondents value public lands in different ways. Several questions received responses that were relatively balanced across the value spectrum, and several had multi-modal distributions. The phenomena were most pronounced in questions that emphasized trade-offs between ecosystem health and other values.
- Ecosystem management activities were rated as among the most important BLM land management activities. Providing wildlife habitat, ensuring watershed health, and reducing soil erosion all received responses on the important side of the scale in excess of 89%. Activities addressing land acquisition, exchange, or sale were among the least important activities to respondents.
- Many respondents reported using BLM lands for subsistence or economic gain. Slightly more than 25% of respondents indicated relying on BLM lands for subsistence purposes. Nine percent of respondents use BLM lands to supplement other income, while only 2% reported use of BLM lands as their sole means of income. Of those respondents (88) that indicated they use BLM lands for economic gain, nearly one-half indicated they earn less than \$1,000 annually. Nearly 20% of the 88 respondents indicated they generate \$25,000 or more annually. Finally, 43% of low-income respondents indicated they rely on BLM lands for subsistence.

Public land ownership

• Respondents tended to be more supportive of the sale or exchange of parcels with good access than those with limited access. The results show that respondents found land sales or exchanges that improve public access to lands with no access, to consolidate lands, to acquire private lands with significant resource values, and for recreational development tended to be more acceptable. Respondents indicated that economic development, expansion of urban growth boundaries,

- or community infrastructure were less acceptable reasons for land sale or exchange. Questions about the sale or exchange of land revealed some of the most polarized opinions of any line of questioning on the survey.
- The majority of respondents reported their opinions on the sale or exchange of BLM lands would not change if the land were of special significance to the respondent. Overall, about 58% of respondents indicated their opinions wouldn't change. A smaller percentage of respondents from the BLM List (43%) and the general population (39%) indicated that their opinions would be changed.

Transportation and access

- A majority of respondents felt they have adequate access to BLM lands in Central Oregon. About 84% of respondents responded affirmatively to this question. Little variation existed between the sample groups.
- Respondents have mixed opinions about use of BLM lands for transportation purposes. Only three of the questions received a majority of responses on the appropriate side of the scale: consolidate multiple roads to reduce environmental impact, accommodate new public rail/transit service, and improve existing unimproved roads to reduce adverse environmental impacts. A majority of respondents felt that improving unimproved roads to reduce congestion or travel times was inappropriate.
- Survey results suggest that respondents consider limiting access to roads and designated trails the most appropriate management strategy. About 80% circled responses indicating limited access to designated roads and trails was appropriate. Two-thirds of respondents felt that open access is inappropriate. A minority—slightly over one-quarter of respondents—felt open access was appropriate. The closed access response showed the most polarized results. About 40% felt closing access was appropriate, 16% were neutral, and 44% felt it was not appropriate. These results suggest more information is necessary to determine the circumstances and locations for different levels of motor vehicle access.

Ecosystem health and diversity

• A majority of respondents felt wildland fires are desired to manage ecosystems, but should be restrained to consider the risk to private property and wildlife habitat. The second most frequent response, checked by about one-fifth of all respondents, was that natural fire disturbances should be put out, and that only prescribed burning should be allowed. About

- 8% of respondents thought wildland fires are desired and should not be put out or that all fires should be put out.
- A majority of respondents think it is important to consider human activities when making decisions about ecosystems or ecosystem management. About 82% of respondents indicated they felt such consideration is important.
- Enforcement of existing regulations is important to respondents as a means to minimize human impacts to ecosystem health. The largest percentage of respondents (57%) felt that increasing enforcement of existing regulation was an appropriate activity. Education/interpretation was checked by a majority of respondents. About 47% checked restricting high impact uses, and 38% checked limiting uses in high use areas. Increasing regulation was the least popular response.
- Respondents are generally supportive of activities that would return ecosystems to pre-European conditions. While a majority of respondents (55%) were supportive of this type of management activity, 15% were neutral and 13% were strongly opposed to such management activities.

Recreation

• Respondents are not supportive of significantly expanding developed recreation facilities from present levels. The most frequently selected response was to not increase developed recreation facilities—40% of respondents selected this option. About 36% of respondents were supportive of slightly increasing developed recreation facilities, while 12% of respondents supported significantly increasing developed recreation facilities. A minority of respondents supported decreasing or eliminating developed recreation facilities on BLM lands.

Perceptions of safety

- Survey results suggest that respondents generally feel safe when they are on BLM lands. About 52% of respondents indicated they usually felt safe on BLM lands, while 35% indicated they always feel safe. Fewer than 10% indicated they feel safe less than half the time on BLM lands.
- While survey respondents generally felt safe on BLM lands, they also identified a number of issues that make them feel unsafe. The most frequently cited reason was uncontrolled shooting (about one-third of respondents wrote in shooting related responses). Other people was the second most frequently cited reason.

Upper Deschutes Social Values Survey

• A large majority of respondents felt it should be a priority for the BLM to take actions to reduce illegal activities on BLM lands. More than 90% of respondents indicated it was a moderate or high priority.

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Chapter 1 Introduction

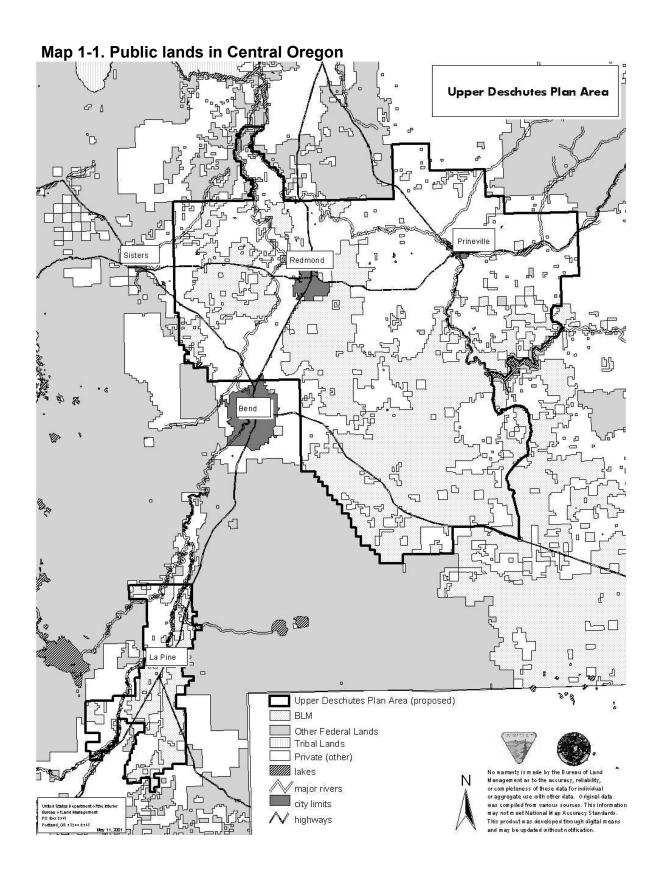
Background

In 1989, the Prineville District Bureau of Land Management (BLM) completed a land use plan governing the use, protection, and enhancement of resources on public land it manages in Central Oregon. That plan, the Brothers/La Pine Resource Management Plan (RMP), did not anticipate issues related to the rapidly growing human population in Bend, Redmond, Prineville, and surrounding areas.

The combination of changed circumstances and new information has driven the need to revise the existing RMP. The Federal Land Policy and Management Act of 1976 (FLPMA) also directs the BLM to develop and periodically update Resource Management Plans (RMPs) that guide land management actions on BLM managed lands. This survey was developed by the University of Oregon, in collaboration with the BLM, Deschutes and Crook Counties, and the cities of Redmond and Prineville to aid in the preparation of the revised land use plan.

The Prineville District BLM is revising the portion of the Brothers/La Pine RMP that includes the lands administered by the BLM roughly in the area between Smith Rock State Park and La Pine, and between Sisters and Prineville Reservoir. At the time the survey was distributed, the "planning area" covered approximately 885,883 acres of public and private land in two separate blocks in central Oregon (see Map 1-1). Of that, approximately 380,000 acres is managed by the BLM. In February, 2002, the planning area was revised to include approximately 22,000 additional acres of BLM-managed lands south of Prineville Reservoir. (See map 1-2). The northern portion of the planning area is in Crook, Deschutes and Jefferson counties, and is located between Sisters on the west, Lake Billy Chinook on the north, Prineville Reservoir and State Highway 27 on the east, and Pine Mountain and Bend on the south. The southern area, also called the La Pine area, encompasses land in southern Deschutes and northern Klamath counties.

Overall, 49% of the land in the planning area falls in Deschutes County, 44% in Crook County, 2% in Jefferson County, and 5% in Klamath County.



Map 1-2. Revised Upper Deschutes RMP study area boundary

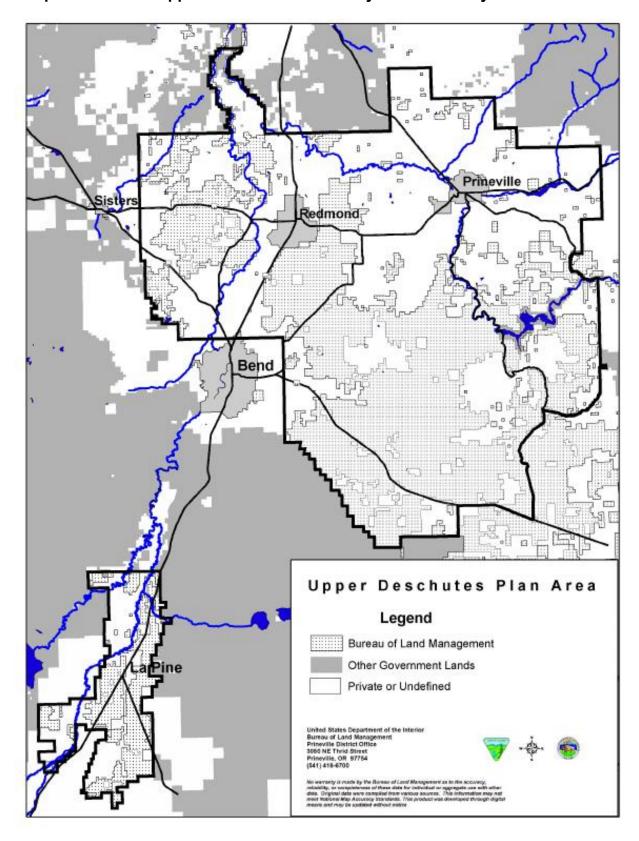


Table 1-1. Land ownership in Central Oregon counties

County	Total area (acres)	BLM land (acres)	Percent in BLM ownership	
Crook	1,914,240	1,033,690	54%	
Deschutes	1,955,200	606,112	31%	
Total	3,869,440	1,639,802	42%	

Source: Bureau of Land Management, Prineville District

The revised plan is called the Upper Deschutes RMP. In September 2001, the BLM published an "Analysis of the Management Situation" (AMS). The AMS provides a starting point for interested parties to understand the biological, physical, social and economic components of the environment that would be affected by the decisions made as a part of the proposed Upper Deschutes RMP. The AMS summarizes the existing situation, explains the need for change (preliminary issues). Comments on the AMS and results of this survey will be used to help develop the as RMP and associated Environmental Impact Statement (EIS).

An EIS will be prepared to consider management alternatives around the key issues. The decisions ultimately made as a result of this process represent the long-term vision for how the BLM will manage these lands over the course of the next decade. These decisions are likely to affect communities and users in many ways.

The BLM sponsored this survey to better understand attitudes and beliefs about BLM-managed resource lands. The Community Planning Workshop at the University of Oregon designed, administered, and evaluated the survey which is intended to provide information that will help the BLM better understand community and user beliefs and attitudes about land management in the study area.

The survey results contained herein will be analyzed and used along with information from public comments, the perceptions and values represented by the Issue Teams, the Intergovernmental Team, and the Deschutes Provincial Advisory Committee to provide some of the statistical baseline information about the importance of public lands to local communities, state and national interests. All of these sources will be used to help clarify issues, develop alternatives, and provide data that can be used to project probable social impacts of implementing the alternatives considered in the environmental impact statement.

Methodology

The primary research tool was a survey mailed to households and key stakeholder groups within the study area. CPW administered the Upper Deschutes Resource Management Plan Social Values Survey to three different sample groups: (1) a General Population sample, taken from a database provided by the market research group InfoUSA.com;

(2) a list of Interested Parties, provided by the BLM, that includes individuals that have expressed interest in the BLM planning process; and (3) a list of Stakeholder organizations identified by the BLM.

CPW distributed approximately 1,400 surveys to randomly selected households within the planning area and an additional 950 surveys to individuals on the Upper Deschutes Resource Management Update mailing list. Of the latter, approximately 40 surveys were targeted specifically to key stakeholders in the region.

Not counting undeliverable addresses, approximately 2,050 surveys were distributed and 692 were completed and returned, for a 34 percent response rate. Table 1-2 shows survey response by group.

Table 1-2. Source of returned surveys

	Sample	valid	Response
Sample source	Size	responses	rate
General population	1,176	287	24%
BLM List	834	388	47%
Stakeholder organizations	40	17	43%
Total	2,050	692	34%

Source: Upper Deschutes Resource Management Plan Social Values Survey, Community Planning Workshop, 2001

A key concern of survey researchers is sample reliability and validity. A sample is considered reliable if the sample methodology consistently assigns the same numbers to some phenomenon. For example, if we administered the survey a second time and obtained the same results, the sample would be considered reliable. A sample is considered valid if it accurately portrays the population in question.

The research methodology used for this project intended to identify the range of values people place upon various aspects of natural resources and land management. The Collaboration Committee spent considerable time discussing the sampling issue and decided that an approach that gathered information about interested parties in the BLM planning process as well as the general population of Central Oregon was most appropriate.

Thus, the sample consisted of two components:

 BLM mailing list. The BLM mailing list sample component intended to gather data about people that have expressed an active interest in BLM management issues in the past. Surveys mailed to people on the BLM mailing list and to stakeholder organizations were not randomly selected. Moreover, the population this sample represents cannot be defined. Thus, the responses are representative of people on the BLM list, but were not intended to be generalized to a larger population. General population. The general population survey was a random sample survey. The intent was to gather information on values and perceptions of people that live in the region. If no response bias existed, the results of the general population sample would be accurate at a 95% confidence level with a ±6% margin of error.

Chapter 2 describes the demographic characteristics of survey respondents in detail; those characteristics, however, are germane to this discussion of survey validity. In general, demographic characteristics of the two sample components were remarkably similar. Because we do not know the demographic characteristics of people on the BLM list, we cannot comment on whether these results are consistent or inconsistent with the sample population.

The sample was predominately male (75% of all respondents were males; 73% of respondents from the random population sample were male). This is inconsistent with the gender composition of Central Oregon and the state, which was very close to 50% male in 2000. In short, the general population sample includes a far greater percentage of males than one would expect.

The average age of respondents in the general population sample was about 55 years. The average age for all persons over 18 in Central Oregon counties in 2000 was just under 50 years. The general population sample, however, appears to be under-represented by people age 30 or under.

Finally, 68% of survey respondents identified themselves as living outside a city limit. This percentage is higher than the 55% percent reported for Crook and Deschutes counties in the 2000 Census. Thus, the survey over-represents persons living outside city limits. It is unclear whether this characteristic would introduce bias into the sample, and if so, what kind of bias.

In summary, known areas of response bias exist in the general population sample. This bias suggests that readers should take caution in inferring the results to all Central Oregon residents. Because the general population sample so closely mirrors the BLM mailing list, we postulate that the general population sample also represents people interested in natural resource management in Central Oregon.

One could hypothesize that the overall sample represents people that use BLM lands (90% of respondents indicated they used BLM lands within the past 12 months), but this again cannot be verified because we do not have data on the demographic characteristics of people that use BLM lands. It is not out of the realm of possibility, however, that 90% of Central Oregon residents use BLM lands.

Despite the areas of known response bias, CPW feels the survey results represent the range of attitudes and values of people in Central Oregon. The survey was sent to both individuals that had previously expressed interest in land management activities in Central Oregon (the BLM list) and a random sample of Central Oregon residents. While the

demographic characteristics of respondents do not represent the overall population, individuals who responded expressed an interest in BLM land management activities by taking the time to complete and return the questionnaire. Moreover, responses to many questions show a range of values exist. Taken in that context, the survey results are useful to BLM planners because they the provide a better understanding of values about land management issues and identify areas where values may conflict with resource management goals or various user groups.

The BLM can take additional steps to gather input from groups that are under-represented by the survey. The most obvious groups would be:

- Females of all ages;
- Persons under age 35;
- · Persons with mobility limitations or other disabilities; and
- Minorities.

A variety of techniques could be used to gather input from these groups. The technique chosen would depend on the objectives. For example, if the BLM is interested in getting a general sense of what persons that represent these populations think, then focus group meetings would be appropriate. If the BLM requires more rigorous data, then focused random sample surveys would be appropriate.

A more detailed discussion of the survey administration process can be found in Appendix A.

Organization of this Report

The remainder of this report is organized into two chapters:

Chapter Two, Demographic Results, describes the demographic characteristics of survey respondents.

Chapter Three, General Survey Results, describes respondents' attitudes and values regarding resource management activities in the planning area.

This report also includes several appendices:

Appendix A includes a detailed discussion of the survey methodology.

Appendix B contains the comments written at the end of the survey.

Appendix C contains the background information provided with the survey.

Appendix D contains a copy of the survey instrument.

Chapter 2

Demographic Results

Introduction

In this chapter, we describe the demographic results of the social values survey that CPW administered during November and December of 2001. Key variables include age, gender, education, and income and location of residence. Where appropriate, we compare survey results with data from the 2000 Census for Central Oregon counties (Crook, Deschutes, and Jefferson).

Demographics of Survey Respondents

In any discussion of survey results based upon a population sample, it is important to identify and describe the demographic characteristics of the sample, and compare them to the characteristics of the population as a whole. Significant demographic differences that may exist between the sample and the population as a whole could indicate areas of potential sample bias.

The survey asked respondents to write in their zip code. The BLM list portion of the survey sample was represented by 107 different zip codes. The general population and stakeholder organizations subsets were represented by 15 and 8 different zip codes, respectively. The full list of zip codes represented in each subset, along with the number of survey responses coming from each zip code, can be found in a table in Appendix A.

CPW used these zip codes to analyze the returned surveys based on geography. Generally, the geographic regions included Central Oregon (including any surveys coming from Deschutes, Crook, or Jefferson Counties), Other Oregon, and Other US. Within the Central Oregon category CPW divided the surveys into those coming from Bend, La Pine, Powell Butte, Prineville, Redmond, Terrebonne, and other Central Oregon areas based on zip codes.

Consistent with the sampling methodology, the majority of the surveys were returned from residents of Central Oregon, and the greatest number of these residents were from Bend. The BLM list subset had the greatest number of respondents from outside Central Oregon, including 21% from Other Oregon locations and 7% from elsewhere in the US. The geographic origin of the returned surveys is shown in Table 2-1. A full list of respondent zip codes by state is included in Appendix A.

Table 2-1. Origin of returned surveys (Q-28)

					Stake	holder		
	General Population		Intereste	ed Parties	Organizations		Total	
Location	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Central Oregon	280	98%	275	71%	15	88%	570	82%
Bend	69	24%	157	40%	9	53%	235	34%
La Pine	35	12%	6	2%	1	6%	42	6%
Powell Butte	7	2%	19	5%	0	0%	26	4%
Prineville	58	20%	26	7%	2	12%	86	12%
Redmond	67	23%	34	9%	2	12%	103	15%
Sisters	26	9%	7	2%	0	0%	33	5%
Terrebonne	18	6%	16	4%	1	6%	35	5%
Other Central OR	0	0%	10	3%	0	0%	10	1%
Other Oregon	5	2%	81	21%	1	6%	87	13%
Other US	0	0%	25	6%	1	6%	26	4%
No Zip Provided	2	1%	7	2%	0	0%	9	1%
Total	287	100%	388	100%	17	100%	692	100%

Source: Upper Deschutes Resource Management Plan Social Values Survey, Community Planning Workshop, 2001

Table 2-2 compares the population of Central Oregon with the survey sample. The percentages are close in Bend, but higher in many other areas. This is because the sample methodology over-sampled in rural communities such as Prineville, Redmond, and Sisters to ensure adequate numbers of responses from those areas.

Table 2-2. Comparison of survey sample with Central Oregon population (Q-28)

Location	2000 Population	Percent of Population	Sample	Percent of sample
	·	Population	Sample	Sample
Central Oregon	153,588	100%	570	82%
Bend	52,029	34%	235	34%
La Pine CDP	5,799	4%	42	6%
Powell Butte	na	na	26	4%
Prineville	7,356	5%	86	12%
Redmond	13,481	9%	103	15%
Sisters	959	1%	33	5%
Terrebonne	1,469	1%	35	5%
Other Central OR	na	na	10	1%
Outside Central OR	na	na	122	18%
Total	153,588	100%	692	100%

Source: 2000 Census; Upper Deschutes Resource Management Plan Social Values Survey, Community Planning Workshop, 2001

The survey also asked respondents to report if they lived inside or outside of a city limit boundary. Thirty-two percent of the total respondents reported that they live inside a city limit boundary, while the remaining 68% reported living outside city limits. Table 2-3 illustrates the percentage of respondents from the general population and interested parties' mailing lists that live inside and outside city limit boundaries. Data from the 2000 Census that would allow comparison of the urban/rural split of the sample were not available at the time this study was completed.

Table 2-3. Respondents living inside or outside city limits (Q-29)

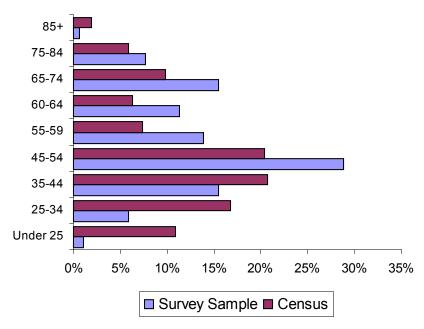
	General Po	General Population Interested Parties			All Respondents		
Response	Number	Percent	Number	Percent	Number	Percent	
Inside City Limit	94	33%	114	30%	216	32%	
Outside City Limit	192	67%	267	70%	468	68%	
Total	286	100%	381	100%	684	100%	

Source: Upper Deschutes Resource Management Plan Social Values Survey, Community Planning Workshop, 2001

The survey respondents' ages ranged from 21 to 93. The greatest number of respondents (29%) fell into the age range of 45-54, and 78% of respondents were at least 45 years old. Figure 2-1 shows the dispersal of the respondents' ages, using the age group categories from the 2000 US Census. The age distribution did not vary significantly within the three survey subsets.

The comparison with the age distribution from the 2000 Census from Central Oregon counties shows some notable differences. First, the three groups under age 45 are under-represented in the sample. The largest gap is individuals under age 25. Second, the groups between 45 and 85 are over-represented in the sample. Persons 85 or over are under-represented in the sample. The median age of survey respondents was about 55 years, while the median age of persons 18 or over in Central Oregon counties was just under 50 years.

Figure 2-1. Comparison of respondent age to 2000 U.S. Census (Q-30)



Source: Upper Deschutes Resource Management Plan Social Values Survey, Community Planning Workshop, 2001

Three-quarters (75%) of the survey respondents were males, a proportion that is inconsistent with that of the general population of Central Oregon. The high representation of males was found in both the general population and BLM list subsets of the survey respondent population, as shown in Table 2-4. The stakeholder organizations subset had the greatest representation of females (35%). Females are clearly under-represented in all of the samples; according to Census data females composed about 50% of the population in Central Oregon counties and the state in 2000.

Table 2-4. Gender of survey respondents (Q-31)

	General P	opulation	Interested	d Parties	All Respondents		
Gender	Number	Percent	Number	Percent	Number	Percent	
Male	207	73%	297	77%	515	75%	
Female	78	27%	88	23%	172	25%	
Total	285	100%	385	100%	687	100%	

Source: Upper Deschutes Resource Management Plan Social Values Survey, Community Planning Workshop, 2001

Three-quarters of survey respondents (75%) were from two-adult households. More than three-quarters of the respondents (76%) had zero children living in their household, while 21% had one or two children living with them. The household size and composition did not vary significantly between the three subsets of respondents. The

household size and composition of the full survey sample can be seen in Table 2-5.

The average household size of survey respondents was slightly smaller than Central Oregon residents overall. According to the 2000 Census, the average household size of Central Oregon residents was about 2.54 persons. The average household size of survey respondents was about 2.41 persons.

Table 2-5. Household size and composition (Q-32)

Number Num		Total Household Size								Percent
of Adults of C	_	1	2	3	4	5	6	7	Total	of Total
1	0	76							76	11%
	1		9						9	1%
	2			2					2	0%
Subtotal		76	9	2					87	13%
2	0		385						385	57%
	1			51					51	8%
	2				63				63	9%
	3					14			14	2%
	4						2		2	0%
	5							1	1	0%
Subtotal			385	51	63	14	2	1	516	76%
3	0			42					42	6%
	1				13				13	2%
	2					3			3	0%
	3						2		2	0%
Subtotal				42	13	3	2		60	9%
4	0				10				10	1%
	1					3			3	0%
	3							2	2	0%
Subtotal					10	3		2	15	2%
5	0					1			1	0%
Total		76	394	95	86	21	4	3	679	100%
Percent of Total	al	11%	58%	14%	13%	3%	1%	0%	100%	

Source: Upper Deschutes Resource Management Plan Social Values Survey, Community Planning Workshop, 2001

CPW asked the survey respondents to estimate their total household income for the year 2000. Figure 2-2 shows the largest percentage of respondents (32%) had incomes in the range of \$25,000 - \$49,999, followed closely by the 29% of respondents who had incomes in the range of \$50,000 - \$74,999. Fifteen percent of respondents reported household incomes of less than \$25,000 a year, while 24% reported annual incomes of \$75,000 or more. The average income was about \$67,000.

There was a noticeable difference in household incomes between the general population and BLM list respondents, with the BLM list respondents displaying higher incomes on average. For example, 30% of the respondents from the BLM mailing list reported household incomes

of \$75,000 or more, versus only 16% of the General Population respondents.

Survey respondents were more affluent than the population of Central Oregon. The average income was over \$67,000 compared to \$34,700 in Crook County, \$44,200 in Deschutes County, and \$36,500 in Jefferson County.

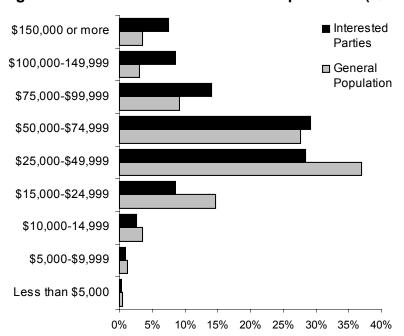


Figure 2-2. Household Income of Respondents (Q-33)

Source: Upper Deschutes Resource Management Plan Social Values Survey, Community Planning Workshop, 2001

Finally, the survey included a question on which survey respondents were asked to indicate their race (for purposes of comparison with U.S. Census data). Ninety-eight percent of the survey respondents answered "White," and 2% answered "American Indian or Alaska Native." One survey respondent identified his or herself as "Native Hawaiian and Other Pacific Islander," and two identified themselves as "Some Other Race." These percentages were consistent throughout the three subsets of the survey sample.

Comparison with 2000 Census data suggest that the sample over-represents white persons. About 91.4% of the population of Central Oregon counties were white according to the 2000 Census. The Census also reported that 5.7% of the Central Oregon population was of Hispanic origin. The survey did not include a question about Hispanic origin.

Table 2-6. Race of survey respondents compared to Census data

	Oregon		Central	Oregon	Sample	
Race	Number	Percent	Number	Percent	Number	Percent
White	2,961,623	86.6%	140,366	91.4%	617	97.8%
Black or African American	55,662	1.6%	280	0.2%		0.0%
American Indian and Alaska Native	45,211	1.3%	4,187	2.7%	11	1.7%
Asian	101,350	3.0%	988	0.6%		0.0%
Native Hawaiian and Other Pacific Islander	7,976	0.2%	133	0.1%	1	0.2%
Other Race	249,577	7.3%	4,457	2.9%	2	0.3%
Total population	3,421,399	100.0%	153,558	100.0%	631	100.0%

Source: 2000 U.S. Census; Upper Deschutes Resource Management Plan Social Values Survey, Community Planning Workshop, 2001

To provide context for the responses, we asked respondents to indicate how far they live from BLM land in Central Oregon (Table 2-7). Overall, 35% of the respondents lived either immediately adjacent to BLM land or within one mile. About 26% of respondents lived between one and five miles, while 15% lived between five and 10 miles. Nine percent lived between 10 and 25 miles, while 13% lived more than 25 miles.

The results show some difference between the sample groups. A higher percentage of respondents (44%) from the BLM list lived less than one mile from BLM lands compared to the general population (27%). This suggests that proximity to BLM land increases landowner interest in BLM land management activities.

In general, these results reflect the close proximity of Central Oregon communities to BLM lands and the composition of the sample—the general population sample only included respondents within the Upper Deschutes Resource Management Planning Area, while the BLM list included individuals that have expressed a personal interest in BLM management activities by signing up for the BLM mailing list.

Table 2-7. Distance respondents' live from BLM land in Central Oregon (Q-6)

	General Population		BLM List		Interest Groups		All Respondents	
Response	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Immediately adjacent	30	11%	88	24%	3	18%	121	18%
Less than one mile	44	16%	66	18%	3	18%	113	17%
Between one and five miles	103	37%	64	17%	5	29%	173	26%
Between five and 10 miles	54	20%	46	12%	3	18%	102	15%
Between 10 and 25 miles	35	13%	21	6%	2	12%	58	9%
Over 25 miles	5	2%	78	21%	1	6%	84	13%
Don't know	5	2%	7	2%	0	0%	12	2%
Total	276	100%	370	100%	17	100%	663	100%

Source: Upper Deschutes Social Values Survey, CPW, 2001.

Key findings

- About 82% of respondents were from Central Oregon counties.
 This result is not surprising; the general population sample only included addresses of people from Central Oregon. About 30% of the respondents from the BLM list indicated they lived outside of Central Oregon.
- The sample was predominately male (75% of all respondents were males; 73% of respondents from the random population sample were male). This is inconsistent with the gender composition of Central Oregon and the state, which was very close to 50% male in 2000. In short, the general population sample includes a far greater percentage of males than one would expect from a general population sample.
- The average age of respondents in the general population sample was about 55 years. The average age for all persons over 18 in Central Oregon counties in 2000 was just under 50 years. The general population sample, however, appears to be underrepresented by people age 30 or under.
- The majority of respondents (68%) indicated they live outside of city limits.
- The average household size of survey respondents was slightly smaller than Central Oregon residents overall. According to the 2000 Census, the average household size of Central Oregon residents was about 2.54 persons. The average household size of survey respondents was about 2.41 persons.
- The average 2000 household income of all survey respondents was about \$67,000. The average 2000 household income of respondents from the general population sample was about \$60,000, while the income of respondents from the BLM list averaged about \$75,000.
- About 98% of survey respondents were white, compared with 91.4% for the Central Oregon population as a whole.

Chapter 3 Survey Results

This chapter presents the survey results. It is organized into the following sections consistent with the survey instrument:

- Use of public lands
- Public land use and management
- Public land ownership
- Transportation
- Ecosystem health and diversity
- Recreation
- Public health and safety

Appendix C contains a copy of the survey instrument.

The survey sample intentionally included three distinct groups: (1) Central Oregon residents (called the general population in this section); (2) individuals on the BLM's Upper Deschutes Resource Management Plan mailing list (call the BLM list in this section); and (3) stakeholder groups or organizations on the BLM's mailing list (called interest groups in this section). Comparisons are made between the groups where appropriate.¹

CPW also analyzed a number of the questions by age and income level. The intent here was to evaluate whether respondents from different age or income groups have different values.

Use of Public Lands

The survey asked respondents several questions about use of public lands in Central Oregon. A newsletter mailed with the survey included a map that showed public lands (BLM, U.S. Forest Service, and other public lands) in the Upper Deschutes Planning Area. Table 3-1 shows that a large majority (over 90%) of respondents indicated they had visited public lands in Central Oregon during the past year. The results show little variation between the samples. The results suggest that public lands are an important resource to respondents.

Analysis of visitation by age shows that visitation decreased as age increased. About 99% of respondents under age 45 reported visiting public lands in the past year, compared to 83% of respondents over age 65.

¹ The small sample size (40) and number of respondents (17) in the interest group categories limits comparisons of this sample population with the rest of the sample.

Table 3-1. Visitation to public lands in Central Oregon during the past 12 months (Q-1)

	General Population		BLM List		Interest	Groups	Total	
Response	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Yes	256	91%	358	93%	16	94%	630	92%
No	25	9%	26	7%	1	6%	52	8%
Total	281	100%	384	100%	17	100%	682	100%

Source: Upper Deschutes Social Values Survey, CPW, 2001.

Table 3-2 shows that a majority of respondents had visited BLM lands in Central Oregon during the past year. The results show more variation than the previous question—87% of the general population sample indicated visiting BLM lands compared to 95% of the BLM list. About three-fourths of the interest group respondents indicated they had visited BLM lands during the past year.

Analysis of visitation by age shows that respondents in the 45 to 64 age group had the highest visitation rate (94%). About 91% of respondents under age 45 reported visiting BLM lands in the past year, compared to 85% of respondents over age 65. The data also show that low-income respondents (those earning less than \$25,000 per year) were slightly less likely to visit BLM lands (85% for low-income respondents compared to 93% for medium- and high-income respondents).

Table 3-2. Visitation to BLM lands in Central Oregon during the past 12 months (Q-2)

	General Population		BLM List		Interest	Groups	Total	
Response	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Yes	219	87%	330	95%	13	76%	562	91%
No	32	13%	17	5%	4	24%	53	9%
Total	251	100%	347	100%	17	100%	615	100%

Source: Upper Deschutes Social Values Survey, CPW, 2001.

Figure 3-1 shows the frequency of visitation respondents reported on BLM lands in Central Oregon. The results show the majority (75%) of the respondents visited BLM lands 25 or fewer times per year. About one-quarter of respondents indicated they visited BLM lands five or fewer times, while about 23% visited BLM lands between 6 and 10 times during the past year.

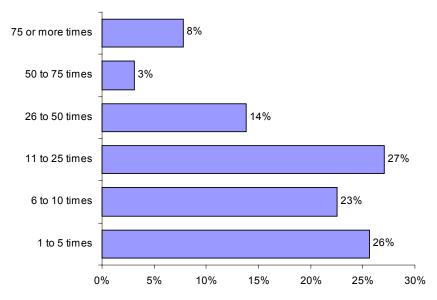
Notably, (25%) of respondents reported visiting BLM lands 26 or more times during the last year. Eight percent indicated they visited BLM lands 75 or more times during the past year. These respondents can be considered heavy users of public lands in Central Oregon.

Analysis of the number of visits to BLM by age group shows that visitation decreases as age increases. Respondents under age 45 reported visiting BLM lands an average of 25 times during the past 12 months, compared to 23 times for persons between age 45 and 64, and 17 times for persons age 65 and over.

Analysis of the number of visits to BLM lands by income show that respondents in the \$25,000-\$74,999 income range visit BLM lands most frequently. Respondents in this income range averaged 23 visits per year, compared to 21 for respondents in

the under $\$25{,}000$ income range and 20 for respondents that earned $\$75{,}000$ or more.

Figure 3-1. Number of visits to BLM lands in Central Oregon during the past 12 months (Q-3) $\,$



Source: Upper Deschutes Social Values Survey, CPW, 2001.

Table 3-3 shows a cross tabulation of visits to BLM land by place of residence. The data show some variation by location, however, the sample size is too small for each city to determine if the differences are statistically significant.

Table 3-3. Visits to BLM lands by place of residence (Q-3 by Q-34)

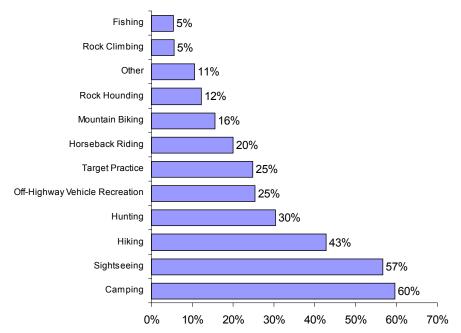
	Annual Visits								
Area	1-5	6-10	11-25	26-50	51-75	76 +	Total		
Central Oregon	98	101	142	72	17	43	473		
Bend	40	39	58	30	9	26	202		
La Pine	9	11	10	5	1	1	37		
Powell Butte	4	2	10	4	1	2	23		
Prineville	19	19	13	10	0	3	64		
Redmond	17	12	33	13	2	7	84		
Sisters	3	9	10	1	1	0	24		
Terrebonne	6	5	6	6	2	4	29		
Other Central OR	0	4	2	3	1	0	10		
Other Oregon	29	19	7	3	0	0	58		
Other US	11	2	0	0	0	0	13		
Total	138	122	149	75	17	43	544		
Central Oregon	21%	21%	30%	15%	4%	9%	100%		
Bend	20%	19%	29%	15%	4%	13%	100%		
La Pine	24%	30%	27%	14%	3%	3%	100%		
Powell Butte	17%	9%	43%	17%	4%	9%	100%		
Prineville	30%	30%	20%	16%	0%	5%	100%		
Redmond	20%	14%	39%	15%	2%	8%	100%		
Sisters	13%	38%	42%	4%	4%	0%	100%		
Terrebonne	21%	17%	21%	21%	7%	14%	100%		
Other Central OR	0%	40%	20%	30%	10%	0%	100%		
Other Oregon	50%	33%	12%	5%	0%	0%	100%		
Other US	85%	15%	0%	0%	0%	0%	100%		
Total	25%	22%	27%	14%	3%	8%	100%		

Source: Upper Deschutes Social Values Survey, CPW, 2001.

Figure 3-2 shows the types of recreational activities respondents participated in on BLM lands in the past year. Not surprisingly camping, sightseeing, and hiking were the most frequently citied activities. Sightseeing and hiking consistently rate among the activities with the highest participation rates nationwide in surveys conducted by the National Sporting Goods Association. Moreover, most respondents reported they participate in more than one of the listed activities on BLM lands in the past 12 months.

CPW also analyzed the participation rates by sample component. While this analysis showed some variation between the sample groups, the differences were not statistically significant.

Figure 3-2. Respondent participation in recreational activities on Central Oregon BLM lands in the past 12 months (Q-4)



Source: Upper Deschutes Social Values Survey, CPW, 2001.

CPW cross-tabulated participation in recreation activities with distance respondents live from BLM land. The results are shown in Table 3-4. The results are somewhat difficult to interpret because of the different participation rates in each activity; however, the results can be interpreted as follows using horseback riding as an example. About 20% of the respondents indicated they participate in horseback riding. Of those, 35% lived adjacent to BLM land.

Table 3-4. Participation in recreational activities by distance from BLM land (Q-4 by Q-6)

Activity	Adjacent	Less than 1 mile	1-5 miles	5-10 miles	10-25 miles	Over 25 miles	Don't know
Hunting	17%	24%	29%	12%	11%	8%	1%
Off-Highway Vehicle Use	12%	17%	23%	14%	10%	23%	2%
Camping	17%	18%	26%	17%	11%	11%	1%
Sightseeing	22%	20%	27%	16%	8%	6%	0%
Horseback Riding	35%	23%	24%	10%	5%	2%	1%
Mountain Biking	21%	19%	25%	20%	10%	4%	1%
Rock Hounding	23%	23%	27%	8%	13%	6%	0%
Target Practice	18%	23%	31%	14%	10%	4%	0%
Hiking	27%	19%	24%	18%	8%	2%	1%

Source: Upper Deschutes Social Values Survey, CPW, 2001.

The survey also asked respondents to indicate the types of non-recreational activities they participated in on BLM lands. Table 3-5 shows the results. The largest non-recreational activity was wood gathering; 18% of respondents indicated using BLM lands for wood gathering in the past year.

Table 3-5. Respondent participation in non-recreational activities on Central Oregon BLM lands in the past 12 months by sample source (Q-5)

	General Population		BLM	List	Total	
Activity	Number	Percent	Number	Percent	Number	Percent
Wood Gathering	67	23%	53	14%	122	18%
Hunting (for food, not sport)	32	11%	26	7%	58	8%
Educational uses	14	5%	30	8%	49	7%
Grazing livestock	4	1%	28	7%	33	5%
Other	7	2%	8	2%	31	4%
Maintenance/ Restoration Related	1	0%	23	6%	24	3%
Outfitting/guiding	4	1%	11	3%	17	2%
Fire Fighting	6	2%	6	2%	14	2%
Gathering/selling misc products	6	2%	2	1%	8	1%
Mining	1	0%	3	1%	4	1%
Commercial Timber Harvest	1	0%	2	1%	3	0%
Traditional tribal activities	1	0%	1	0%	2	0%

Source: Upper Deschutes Social Values Survey, CPW, 2001.

Key findings: Use of Public Lands

- A large majority of respondents use BLM lands in Central Oregon. Over 90% indicated they had visited BLM lands in the past year.
- The majority (75%) of the respondents visited BLM lands 25 or fewer times per year. About one-quarter of respondents indicated they visited BLM lands five or fewer times, while about 23% visited BLM lands between 6 and 10 times during the past year. Visitation decreases as age increases.
- Camping, sightseeing, and hiking were the most frequently citied activities that respondents participated in on BLM lands in the last 12 months.
- The largest non-recreational activity was wood gathering; 18% of respondents indicated using BLM lands for wood gathering in the past year.

Public Land Use and Management

Survey respondents were asked a number of general questions regarding public land use and management. To provide context for the responses, we asked respondents to indicate how far they live from BLM land in Central Oregon (Table 2-7, Chapter 2). Overall, 35% of the respondents lived either immediately adjacent to BLM land or within one mile. About 26% of respondents lived between one and five miles, while 15% lived between five and 10 miles. Nine percent lived between 10 and 25 miles, while 13% lived more than 25 miles.

The mission of the Bureau of Land Management is to sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations. In addition, the BLM is mandated to provide for multiple uses by the Federal government.

The survey included a question intended to determine the extent to which respondents felt the BLM was achieving its mission. Figure 3-3 shows that nearly two-thirds of the respondents felt that the BLM is achieving its mission either "very well" or "somewhat well." About 27% felt the BLM was achieving its mission either "not well" or "not at all." Nine percent responded they didn't know how well the agency is achieving its mission.

Analysis of respondent opinions on how well the BLM is achieving its mission by income shows that respondents in the medium- and high- income categories were more likely to respond "not well" or "not at all." About 13% of respondents in the low-income group checked "not well" or "not at all" compared to 26% in the medium income group and 31% in the high income group.

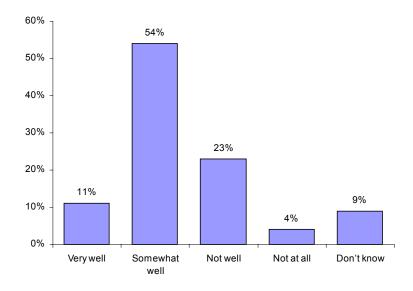


Figure 3-3. Respondent opinions about how well the BLM is achieving its mission (Q-8)

Source: Upper Deschutes Social Values Survey, CPW, 2001.

To evaluate attitudes concerning land management, CPW worked with the Collaboration Committee to develop a set of value statements. The survey asked respondents to rate their agreement with those land management values on a seven-point scale (3=strongly agree, 0=neutral, -3 strong disagree). Table 3-6 summarizes respondent attitudes about land management values.

The results indicate that respondents place a high value on lands in public ownership and that they are important for the social and economic health of Central Oregon communities.

The results also underscore that different respondents value public lands in different ways. Several statements received responses that were relatively balanced across the value spectrum, and several had multi-modal distributions. This phenomena was most pronounced in statements that emphasized trade-offs between ecosystem health and other values.

More specific interpretation of this question follows.

- A large majority (90%) of respondents felt BLM lands are important to maintaining the overall social and economic health of Central Oregon communities.
- Consistent with the previous finding, a majority of respondents (86%) agree that keeping BLM-managed land in public ownership is important to the long-term economic health of the region.
- About 85% of respondents agreed that the presence of BLM lands in the planning area improves their overall quality of life.
- About 71% of respondents agreed that the BLM provides adequate multiple use opportunities within the planning area.
- Two-thirds of respondents agreed that public opinion affects the land management decisions made by the BLM.
- About 57% of respondents felt that the proximity to public land increases the value of their property. Cross-tabulation of this statement with distance respondent lives from BLM lands shows that 76% respondents immediately adjacent agreed with this statement. The percentages decrease as distance increases until the "over 25 miles category." About 41% of respondents that lived between 10 and 25 miles from BLM lands agreed with this statement, compared to 46% of respondents that lived over 25 miles from BLM lands.
- The trade-off questions are somewhat ambiguous about how respondents value economic, environmental, and community health issues. About 53% of respondents agreed that environmental concerns should be considered first when resource management decisions involve trade-offs between environmental concerns and other needs. About 60% of respondents agreed that the health of local communities should be considered first when resource management decisions involve trade-offs between environmental concerns and the health of local communities.
- Responses suggest the BLM needs to find ways to balance these concerns. About 78% of respondents agreed that environmental, recreation, and economic needs should be balanced with other concerns in resource management decisions.

Table 3-6. Respondent attitudes about land management values (Q-7)

Table 6 of Respondent atti	Strongly A			Nuetral		Strongly Disagree	
Statement	3	2	1	0	-1	-2	-3
BLM-managed lands are important for maintaining the overall social and economic health of communities in Central Oregon.	61%	19%	10%	7%	2%	1%	2%
Keeping BLM-managed land in public ownership is important to the long-term economic health of the region.	63%	17%	6%	7%	3%	1%	3%
The presence of BLM lands in the planning area improves my overall quality of life.	54%	20%	11%	11%	1%	1%	3%
Environmental, recreation, and economic needs should be balanced with other concerns in resource management decisions.	35%	26%	17%	10%	4%	5%	3%
The BLM provides adequate multiple use opportunities within the planning area.	27%	27%	17%	13%	6%	5%	4%
Public opinion affects the land management decisions made by the BLM.	24%	21%	22%	15%	6%	4%	8%
When resource management decisions involve trade-offs between environmental concerns and the health of local communities, the health of local communities should be considered first.	25% s	19%	17%	13%	10%	6%	10%
Proximity to public land increases the value of my property.	25%	16%	16%	31%	3%	2%	7%
When resource management decisions involve trade-offs between environmental concerns and other needs, the environmental concerns should be considered first.	22%	16%	15%	16%	13%	7%	11%
When resource management decisions involve trade-offs between ecosystem health and human economic needs, the economic needs should be considered first.	1 15%	13%	16%	13%	12%	9%	22%
When resource management decisions involve trade-offs between ecosystem health and recreation needs, the recreation needs should be considered first.	13%	12%	14%	15%	11%	12%	23%

As a follow-up to respondent attitudes about land management values, we asked respondents to share their attitudes about the importance of various BLM land management activities. Table 3-7 shows the responses ranked in order from the highest percentage of respondents that circled a positive response.

Ecosystem management activities were rated as among the most important activities. Providing wildlife habitat, ensuring watershed health, and reducing soil erosion all received responses on the important side of the scale in excess of 89%. With the exception of the bottom five activities listed in Table 3-7, all of the activities had more than 50% of the responses on the important side of the scale. This result suggests that respondents consider the majority of management activities listed in Table 3-7 as important.

The five bottom activities show responses that are more evenly spread across the scale, or that have significant percentages of responses on either end of the scale.

Table 3-7. Respondent attitudes about the importance of BLM land management activities (Q-9)

management activities (Very Impo	rtant		Nuetral		Not	Important
BLM Management Activity	3	2	1	0	-1	-2	-3
Providing wildlife habitat	58%	25%	11%	4%	0%	1%	2%
Ensuring watershed health	54%	25%	12%	6%	1%	1%	1%
Reducing soil erosion	46%	29%	14%	6%	2%	2%	2%
Managing hazardous fuels to reduce wildfire risk	42%	23%	17%	10%	3%	1%	3%
Providing undeveloped/dispersed recreation opportunities	33%	28%	19%	11%	3%	2%	4%
Protecting archeological resources	38%	25%	17%	12%	2%	2%	4%
Eliminating invasive species	37%	22%	17%	15%	3%	2%	3%
Balancing the needs of all BLM users	32%	25%	17%	14%	4%	4%	4%
Providing law enforcement	30%	21%	21%	14%	5%	2%	7%
Providing multiple access points to individual areas of BLM-managed land	26%	22%	23%	13%	6%	5%	6%
Restricting or closing motor vehicle access in order to protect natural resources	36%	17%	15%	8%	7%	5%	13%
Providing for non-motorized vehicle use	24%	21%	21%	17%	5%	4%	8%
Providing for grazing	23%	20%	19%	12%	7%	5%	14%
Providing developed recreation opportunities	18%	17%	23%	14%	8%	6%	13%
Ensuring opportunities for traditional tribal cultural activities	21%	18%	17%	24%	5%	3%	12%
Maintaining areas for existing military training facilities	17%	16%	20%	22%	5%	5%	15%
Providing for transportation connections between Central Oregor cities	ı 16%	15%	17%	23%	6%	6%	18%
Providing for off-highway vehicle use	20%	12%	16%	10%	9%	6%	27%
Maintaining areas for mineral/aggregate extraction	14%	12%	17%	17%	9%	8%	24%
Exchanging or selling land to accommodate community growth	14%	11%	17%	15%	10%	8%	26%
Expanding federal land holdings	13%	12%	13%	28%	8%	6%	21%

Source: Upper Deschutes Social Values Survey, CPW, 2001.

Some public land users rely on BLM lands for subsistence or economic purposes. The survey asked a series of questions to determine how many respondents use BLM lands for these purposes.

Table 3-8 shows the percentage of respondents that rely on BLM-managed lands to meet subsistence needs such as hunting for food (not for sport) or collecting firewood for heat. Overall, slightly more than 25% of respondents indicated relying on BLM lands for subsistence purposes. The general population sample showed a higher incidence of reliance on BLM lands than respondents on the BLM list.

Analysis of responses by income level shows that low-income respondents are far more likely to rely on BLM lands for subsistence than middle- and high-income respondents. About 43% of low-income respondents (incomes less than \$25,000) reported using BLM lands for subsistence, compared to 27% of medium-income respondents and only 13% of high-income respondents. Age was not a significant factor in use of BLM lands for subsistence.

Table 3-8. Percent of respondents relying on BLM lands for subsistence (Q-10)

	General P	opulation	BLM List		Interest	Groups	All Respondents	
Response	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Yes	83	36%	63	20%	1	8%	147	26%
No	149	64%	254	80%	12	92%	415	74%
Total	232	100%	317	100%	13	100%	562	100%

Source: Upper Deschutes Social Values Survey, CPW, 2001.

Table 3-9 shows the percentage of respondents that rely on BLM lands for economic gain (i.e. grazing, craft industries, miscellaneous forest products, etc.). Two percent of respondents indicated that BLM lands provide their sole means of income, while 9% indicated that BLM lands supplements other income in their household.

Table 3-9. Percent of respondents relying on BLM lands for income (Q-10)

Response	Number	Percent
Yes, sole means of income	11	2%
Yes, supplements other income	57	9%
No	599	90%
Total	667	100%

Source: Upper Deschutes Social Values Survey, CPW, 2001.

We were interested in finding out how much income respondents generated from BLM lands. Of those respondents (88) that indicated they use BLM lands for economic gain, nearly one-half indicated they general less than \$1,000 annually. Nearly 20% of the 88 respondents indicated the generate \$25,000 or more annually.

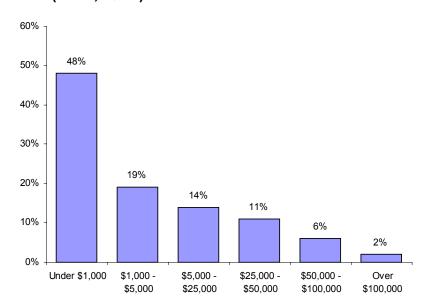


Table 3-6. Annual gross income generated from respondent use of BLM lands (n=88; Q-11)

Respondents also wrote comments concerning land use and management. Thirty-five comments addressed the issue of grazing, while 29 addressed multiple-use management. A complete listing of comments is presented in Appendix B.

Key findings: Land use and management

- Nearly two-thirds of the respondents felt that the BLM is achieving its mission either "very well" or "somewhat well." About 27% felt the BLM was achieving its mission either "not well" or "not at all." Nine percent responded they didn't know how well the agency is achieving its mission.
- A majority (90%) of respondents felt BLM lands are important to maintaining the overall social and economic health of Central Oregon communities. Moreover, a majority of respondents (86%) agree that keeping BLM-managed land in public ownership is important to the long-term economic health of the region.
- The trade-off questions are somewhat ambiguous about how respondents value economic, environmental, and community health issues. About 53% of respondents agreed that environmental concerns should be considered first when resource management decisions involve trade-offs between environmental concerns and other needs. About 60% of respondents agreed that the health of local communities should be considered first when resource management decisions involve trade-offs between environmental concerns and the health of local communities.
- Responses suggest the BLM needs to find ways to balance these concerns in the RMP. About 78% of respondents agreed that environmental, recreation,

- and economic needs should be balanced with other concerns in resource management decisions.
- Ecosystem management activities were rated as among the most important activities. Providing wildlife habitat, ensuring watershed health, and reducing soil erosion all received responses on the important side of the scale in excess of 89%.
- Slightly more than one-quarter of respondents indicated relying on BLM lands for subsistence purposes. Low-income respondents are far more likely to rely on BLM lands for subsistence than middle- and high-income respondents. About 43% of low-income respondents (incomes less than \$25,000) reported using BLM lands for subsistence, compared to 27% of medium-income respondents and only 13% of high-income respondents.

Public Land Ownership

In this section of the survey, respondents were asked several questions regarding their attitudes about public land ownership and the potential sale or exchange of BLM lands within the Upper Deschutes Resource Management Area.

Table 3-10 shows respondent attitudes about the sale or exchange of BLM lands. The responses to the statements in Table 3-10 reveal some interesting results. First, responses were more evenly distributed across the range of values (from strongly agree to strongly disagree) than other similar questions on the survey. Second, respondents tended to be more supportive of the sale or exchange of parcels with good access than those with limited access.

Analysis of responses to the land sale and exchange statements by sample group reveals some minor differences, but does not reveal any notable trends.

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Table 3-10. Respondent attitudes about sale or exchange of BLM lands (Q-13)

	Strongly A	gree		Nuetral		Strongly Disagree	
Statement	3	2	1	0	-1	-2	-3
Isolated parcels of BLM-managed resource land that have limited resource value, but good access, should be sold or exchanged.	19%	14%	12%	14%	9%	8%	24%
Isolated parcels of BLM- managed resource land which have important resource value, but limited access should be sold or exchanged.	14%	8%	14%	13%	11%	11%	30%
Isolated parcels of BLM- managed resource land, which have neither resource value nor access, should be sold or exchanged.	11%	5%	7%	14%	9%	11%	43%
Isolated parcels of BLM- managed resource land, which have both important resource value and good access, should be sold or exchanged.	31%	16%	14%	15%	4%	4%	15%

As a follow-up to the previous question, the survey further inquired about the acceptability of various land sale or exchange for various reasons. Table 3-11 shows the results.

The results show that respondents found land sales or exchanges that improve public access to lands with no access, to consolidate lands, to acquire private lands with significant resource values, and for recreational development tended to be more acceptable.

Respondents indicated that economic development, expansion of urban growth boundaries, or community infrastructure were less acceptable reasons for land sale or exchange.

Table 3-11. Respondent attitudes about the acceptability of reasons for sale or exchange of BLM lands (Q-14)

	Acceptabl	е		Nuetral		Un	acceptable
Reason to Exchange Public Land	3	2	1	0	-1	-2	-3
Economic Development	14%	13%	15%	14%	10%	8%	28%
Improve public access to BLM- managed lands with no current access	30%	26%	19%	9%	3%	4%	8%
Consolidate contiguous blocks of public lands	31%	26%	16%	14%	2%	2%	8%
Acquire private lands with unique values	30%	22%	14%	13%	5%	3%	14%
Urban Growth Boundary expansion	12%	8%	14%	16%	10%	9%	31%
City or community expansion/infrastructure development	13%	10%	15%	17%	12%	8%	27%
Recreational Development	28%	22%	18%	13%	6%	3%	10%
Other	29%	5%	4%	49%	1%	1%	12%

To test the strength of respondents' attitudes concerning land exchange, we asked respondents to indicate whether their opinions would change if the lands to be sold or exchanged were of special significance to the respondent. The results indicate that individuals from interest groups were most likely to change their opinion. A smaller percentage of respondents from the BLM List (43%) and the general population (39%) indicated that their opinions would be changed.

Table 3-12. Responses to the question "would your opinion change if the land were of special significance to you?" (Q-15)

	General P	opulation	BLM List		Interest	Groups	All Respondents	
Response	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Yes	106	39%	152	43%	9	56%	267	42%
No	164	61%	204	57%	7	44%	375	58%
<u>Total</u>	270	100%	356	100%	16	100%	642	100%

Source: Upper Deschutes Social Values Survey, CPW, 2001.

Respondents also provided written comments on public land ownership. Forty-four comments addressed issues related to land sale or exchange, while six comments addressed urban growth issues. A complete listing of comments is presented in Appendix B.

Key findings: Public land ownership

- Public land sale and exchange is an important issue to many respondents. Many comments address specific land sale and exchange issues.
- Land sales or exchanges that improve public access to lands with no access, to consolidate lands, to acquire private lands with significant resource

values, and for recreational development tended to be more acceptable to respondents than those for other reasons.

Transportation and Access

Transportation is a key management issue in the Upper Deschutes Resource Management area. Access to BLM lands as well as transportation facilities that pass through BLM lands are both key transportation issues addressed in the survey.

The transportation questions began by asking respondents to indicate whether they felt they had adequate access to BLM lands (Table 3-13). A majority of respondents (84%) answered affirmatively. Little variation existed between the sample groups in the responses to this question. Further, the results show little variation by income to the responses to this question. Some variation exists by age; about 88% of respondents under age 45 indicated they have adequate access, compared to about 79% of respondents age 65 or over.

Table 3-13. Respondent opinions to the statement "do you feel you have adequate access to BLM lands?" (Q-16)

	General P	opulation	BLM List		Interest	Groups	All Respondents	
Response	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Yes	233	85%	305	83%	14	88%	552	84%
No	42	15%	63	17%	2	13%	107	16%
Total	275	100%	368	100%	16	100%	659	100%

Source: Upper Deschutes Social Values Survey, CPW, 2001.

Table 3-14 summarizes respondent attitudes about the use of BLM lands for various types of transportation improvements. The statements are ranked by the percentage of positive responses (responses on the "appropriate" end of the scale).

Only three of the statements received a majority of responses on the appropriate side of the scale: consolidate multiple roads to reduce environmental impact, accommodate new public rail/transit service, and improve existing unimproved roads to reduce adverse environmental impacts. However, in seven of the nine questions regarding use of BLM lands for transportation purposes, the percentage of respondents who considered such uses appropriate was greater than the percentage that considered such uses inappropriate.

A majority of respondents felt that improving unimproved roads to reduce congestion or travel times was inappropriate (the last statement in Table 3-14). Responses were distributed across the scale on many of the other statements.

Table 3-14. Respondent opinions concerning use of BLM lands for transportation purposes (Q-17)

	Very Appr	opriate		Nuetral		Not A	ppropriate
Intent	3	2	1	0	-1	-2	-3
Consolidate multiple roads if the intent is to reduce impacts to the environment	30%	23%	19%	13%	3%	4%	8%
Accommodate <i>new</i> public transit/rail service	24%	24%	22%	14%	5%	3%	8%
Improve existing unimproved roads in order to avoid adverse ecological impacts from construction of a new/alternate road	17%	16%	18%	15%	9%	8%	18%
Provide <i>new</i> roads to areas of BLM land that are <i>not</i> currently accessible	14%	16%	19%	24%	9%	6%	13%
Reduce commute times and congestion between existing cities/communities in the planning area	15%	13%	18%	16%	11%	7%	21%
Accommodate <i>regional</i> transportation needs created by population growth	14%	13%	19%	15%	10%	9%	20%
Reduce trucking/shipping times through the planning area	18%	11%	15%	21%	10%	7%	19%
Provide new transportation links to new development in the planning area	12%	10%	18%	13%	14%	8%	25%
Improve existing unimproved roads in order to reduce congestion and travel times	13%	6%	8%	7%	7%	10%	50%

Table 3-15 shows respondent opinions about motor vehicle access on BLM lands. The BLM has three levels of access: (1) open access where motor vehicles are allowed anywhere; (2) access limited to roads and designated trails, and (3) closed to motor vehicle access. The results suggest that respondents consider limiting access to roads and designated trails most appropriate (80% circled responses on the positive side of the scale). Two-thirds of respondents felt that open access is inappropriate. A minority—slightly over one-quarter of respondents—felt open access was appropriate. The closed access responses show the most polarized results. About 40% felt closing access was appropriate, 16% were neutral, and 44% felt it was not appropriate. These results suggest more information is necessary to determine the circumstances and location of motor vehicle access.

Table 3-15. Respondent opinions concerning motor vehicle access on BLM lands (Q-18)

	Very Appr	opriate		Nuetral		Not Appropriate	
Motor vehicle access category	3	2	1	0	-1	-2	-3
Open access – drive anywhere	13%	6%	8%	7%	7%	10%	50%
Limited to designated roads and trails	46%	22%	12%	8%	4%	3%	5%
Closed	23%	8%	9%	16%	8%	6%	30%

Respondents also provided written comments on transportation and land access. Eighty-eight of the written comments addressed access issues—the largest number of any comment category. Seventy-three addressed off-highway vehicle use, and 14 addressed other transportation issues. A complete listing of comments is presented in Appendix B.

Key findings: Transportation and access

- A majority of respondents (84%) felt they had adequate access to BLM land.
- Attitudes about appropriateness of using BLM lands for transportation purposes revealed only three of nine reasons were considered appropriate by a majority of respondents. These include: consolidate multiple roads to reduce environmental impact, accommodate new public rail/transit service, and improve existing unimproved roads to reduce adverse environmental impacts.
- Respondents consider limiting access to roads and designated trails most appropriate (80% circled responses on the positive side of the scale). Two-thirds of respondents felt that open access is inappropriate. A minority—slightly over one-quarter of respondents—felt open access was appropriate. About 40% felt closing access was appropriate, 16% were neutral, and 44% felt it was not appropriate. These results suggest more information is necessary to determine the circumstances and location of motor vehicle access.

Ecosystem Health and Diversity

Survey respondents were asked a number of questions related to ecosystem health and diversity. Issues explored on the survey included attitudes about fire suppression, consideration of other values when making management decisions concerning ecosystem health, and activities intended to return ecosystems to pre-European conditions.

Table 3-15 shows respondent opinions concerning fire suppression on BLM lands. A majority of respondents from all of the sample populations think wildland fires are desired to manage ecosystems, but should be restrained to consider the risk to private property and wildlife habitat. The second most frequent response, checked by about one-fifth of all respondents, was that natural fire disturbances should be put out, and that only prescribed burning should be allowed. A minority of respondents thought wildland fires are desired and should not be put out or that all fires should be put out.

Table 3-15. Respondent opinions concerning fire suppression on BLM-

managed lands (Q-19)

	General Population		BLM List		All Respondents	
Response	Number	Percent	Number	Percent	Number	Percent
Wildland fires are desired, therefore management activity should not suppress natural fires.	16	6%	32	8%	50	7%
Wildland fires are desired to manage ecosystems, but should be restrained to consider the risk to private property and wildlife habitat.	177	62%	254	67%	442	65%
Natural fire disturbances should be put out; only prescribed burning should be allowed.	73	26%	62	16%	137	20%
All fires should be put out.	12	4%	19	5%	31	5%
Don't know	6	2%	11	3%	18	3%
Total	284	100%	378	100%	678	100%

Source: Upper Deschutes Social Values Survey, CPW, 2001.

Figure 3-7 shows respondent opinions about consideration of human activities when making decisions about ecosystems or ecosystem health. A majority of respondents (82%) think it is important to consider human activities. The responses varied somewhat by sample. Respondents from the interest group sample had the highest percentage of "important" responses, while the general population had the smallest percentage of "important" responses (a majority of the general population felt consideration of human activities is important).

Figure 3-7. Respondent opinions concerning consideration of human activities when making decisions about ecosystems or ecosystem health (Q-20)

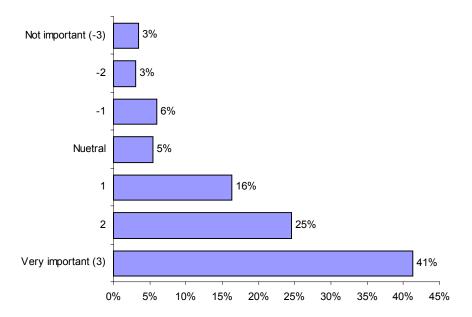


Figure 3-8 shows respondent attitudes concerning activities intended to minimize human impacts to ecosystem health. Respondents were able to check as many responses as they wanted. The largest percentage of respondents (57%) felt that increasing enforcement of existing regulation was an appropriate activity. Education/interpretation was checked by a majority of respondents. About 47% checked restricting high impact uses, and 38% checked limiting uses in high use areas. Increasing regulation was the least popular response.

Figure 3-8. Respondent attitudes concerning activities intended to minimize human impacts to ecosystem health (Q-21)

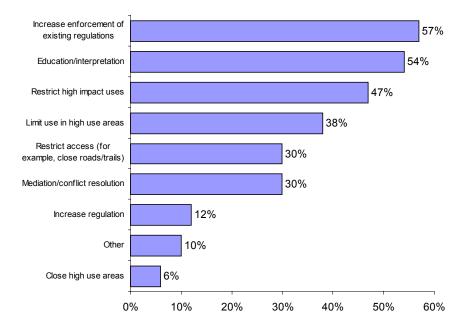
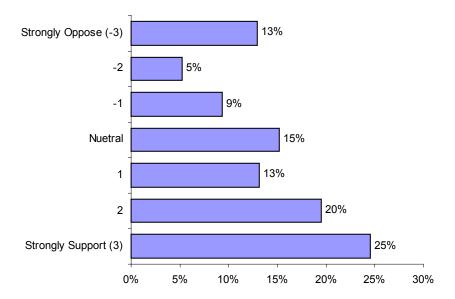


Figure 3-9 shows respondent attitudes concerning BLM management activities that would result in this kind of "pre-settlement" condition. While a majority of respondents were supportive of this type of management activity, 15% were neutral and 13% were strongly opposed to such management activities.

Figure 3-9. Respondent attitudes concerning BLM management activities that would result in this kind of "pre-settlement" condition [converting young juniper woodlands (less than 150 years) to shrub and grasslands] (Q-22)



Respondents also provided written comments on ecosystem health and diversity. Twenty-one comments addressed general issues related to ecosystem management, 13 addressed restoration of lands to historic conditions, while 11 addressed issues related to habitat conservation. Six comments addressed fire management. A complete listing of comments is presented in Appendix B.

Key findings: Ecosystem health and diversity

- A majority of respondents from all of the sample populations think wildland
 fires are desired to manage ecosystems, but should be restrained to consider
 the risk to private property and wildlife habitat. The second most frequent
 response, checked by about one-fifth of all respondents, was that natural
 fire disturbances should be put out, and that only prescribed burning should
 be allowed.
- A majority of respondents (82%) think it is important to consider human activities when making decisions about ecosystems or ecosystem health.
- Respondents identified a number of activities intended to minimize human impacts to ecosystem health. About 57% felt that increasing enforcement of existing regulation was an appropriate activity. Education/interpretation was checked by a majority of respondents. About 47% checked restricting high impact uses, and 38% checked limiting uses in high use areas. Increasing regulation was the least popular response.
- A majority of respondents were supportive of this type of management activities that would result in this kind of "pre-settlement" condition. However, 15% were neutral and 13% were strongly opposed to such management activities.

Recreation

In this section, respondents were asked to evaluate and identify recreation activities, facilities, and management on BLM lands. Figure 3-10 shows respondent attitudes about management recreation facilities on BLM lands. No category received a majority of responses. The most frequently selected response was to not increase developed recreation facilities—40% of respondents selected this option. About 36% of respondents were supportive of slightly increasing developed recreation facilities, while 12% of respondents supported significantly increasing developed recreation facilities. A minority of respondents supported decreasing or eliminated developed creation facilities on BLM lands.

Reduce developed recreation facilities

Not increase developed recreation facilities

Slightly increase developed recreation facilities

Significantly increase developed recreation facilities.

12%

0%

Figure 3-10. Respondent attitudes concerning management of recreational facilities (Q-23)

Source: Upper Deschutes Social Values Survey, CPW, 2001.

The survey also inquired about respondents' frequency of use of BLM lands for various recreational activities. Table 3-16 shows the results. The results are consistent with the responses shown in Table 3-3 (use of BLM lands for recreational activities during the past 12 months). Sightseeing and hiking were the activities respondents' in which participants most frequently participate.

10%

20%

30%

50%

40%

Table 3-16. Rate of respondent participation in selected recreational activities on BLM lands (Q-24)

Recreation activity	Often	Sometimes	Rarely	Never
Sightseeing	50%	40%	7%	4%
Hiking	35%	40%	15%	10%
Bird/wildlife viewing	34%	37%	16%	13%
Other	32%	19%	1%	47%
Camping	30%	44%	15%	12%
Fishing	25%	36%	18%	21%
Hunting	23%	28%	10%	39%
Off-highway vehicle use	22%	21%	17%	40%
Horseback riding	19%	14%	10%	56%
Socializing	18%	37%	23%	21%
Target Practice	13%	27%	19%	41%
Mountain biking/cycling	7%	22%	19%	53%
Backpacking	7%	23%	27%	43%
Running	6%	11%	19%	63%
Rock hounding	5%	21%	27%	47%
Spelunking	4%	12%	29%	55%

Respondents also provided written comments on recreation. Thirty-two comments addressed recreation in some manner. A complete listing of comments is presented in Appendix B.

Key findings: Recreation

- The majority of respondents support not increasing or slightly increasing developed recreation opportunities on BLM lands. The most frequently selected response was to not increase developed recreation facilities—40% of respondents selected this option. About 36% of respondents were supportive of slightly increasing developed recreation facilities, while 12% of respondents supported significantly increasing developed recreation facilities.
- Maintaining access to recreational areas appears to be a key issue to many respondents.

Perceptions of Safety

The final section of the survey inquired about respondent perceptions of safety. Figure 3-11 shows how safe respondents feel when on BLM lands. Overall, results

suggest that respondents generally feel safe when they are on BLM lands. A slight majority (about 52%) indicated they usually felt safe on BLM lands, while 35% indicated they always feel safe. Fewer than 10% indicated they feel safe less than half the time on BLM lands.

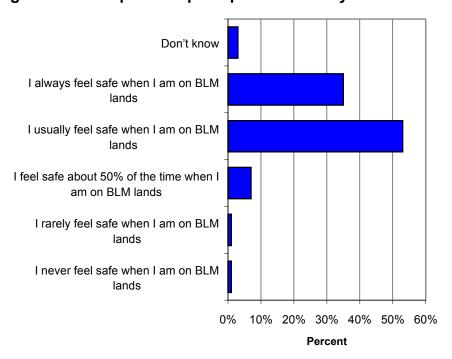


Figure 3-11. Respondent perceptions of safety on BLM lands (Q-25)

Source: Upper Deschutes Social Values Survey, CPW, 2001.

The survey explored reasons why respondents felt unsafe on BLM lands. Respondents were asked to write in the top reason they feel unsafe on BLM lands. Figure 3-12 shows the results. No single reason received a majority of responses. The most frequently cited reason was uncontrolled shooting (about one-third of respondents wrote in shooting related responses). Other people was the second most frequently cited reason.

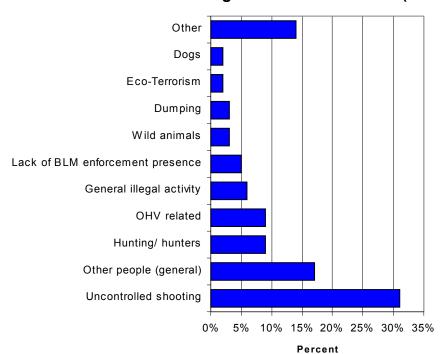


Table 3-12. Reasons for feeling unsafe on BLM lands (Q-26)

Figure 3-13 shows respondents' opinions about the importance of BLM actions to reduce illegal activities on BLM lands. More than 90% of respondents indicated it was a high or moderate priority.

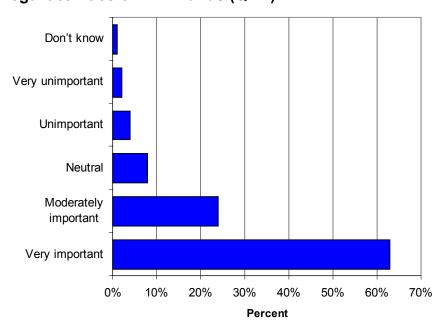


Figure 3-13. Respondent rating of the importance of BLM action to reduce illegal activities on BLM lands (Q-27)

Respondents also provided written comments on law enforcement and safety issues. Seventeen comments addressed issues of law enforcement, while two comments addressed safety issues. Twenty-two comments addressed dumping. A complete listing of comments is presented in Appendix B.

Key findings: Perceptions of safety

- Respondents generally feel safe when they are on BLM lands. A slight majority (about 52%) indicated they usually felt safe on BLM lands, while 35% indicated they always feel safe. Fewer than 10% indicated they feel safe less than half the time on BLM lands.
- The most frequently cited reason for feeling unsafe on BLM lands was uncontrolled shooting (about one-third of respondents wrote in shooting related responses). Other people was the second most frequently cited reason.
- More than 90% of respondents indicated actions to reduce illegal activities on BLM land was a high or moderate priority.

Comment content analysis

Question 35 on the survey invited respondents to share written comments. Of the 692 valid surveys returned, 309 (45%) included some type of written comment. CPW coded those comments into 22 categories for the purpose of analysis. Each

individual survey could be coded into as many as five separate categories. Table 3-17 summarizes the comments received on the surveys by sample components.

Overall, CPW coded 534 different issues in the comments. About 65% of the comments came from respondents on the BLM list.

The most frequent comment category was access. About 16% of all the comments addressed access issues. Off-highway vehicle use was the issued commented on second most frequently, followed by land sale/exchange.

Table 3-17. Coded survey comments

Category	General Population	BLM list	Stake - holder Groups	Total	Percent of Total
Access	35	48	5	88	16%
Off-highway vehicle use	9	62	2	73	14%
Land sale/exchange	15	29		44	8%
Grazing	11	24		35	7%
Recreation	4	28		32	6%
Multiple use management	11	18		29	5%
Mineral extraction	3	20		23	4%
Dumping	14	8		22	4%
Ecosystem management	6	13	2	21	4%
Law enforcement	7	10		17	3%
Survey Instrument	6	11		17	3%
Hunting/shooting	10	6		16	3%
Transportation (through BLM lands)	7	7		14	3%
Public Involvement	2	12		14	3%
Restoration to historic condition	4	9		13	2%
Habitat conservation	8	3		11	2%
Timber harvest		10		10	2%
Fire management	2	4		6	1%
Urban Growth	3	2	1	6	1%
Staff/BLM		5		5	1%
Financing/Costs	2		1	3	1%
Safety	2			2	0%
Other	14	18	1	33	6%
Total	175	347	12	534	100%